

$\{x_1, \dots, x_n\}$  is a basis for  $V$  if and only if  $\{x_1, \dots, x_n\}$  is a linearly independent set in  $V$  and  $\{x_1, \dots, x_n\}$  spans  $V$ .

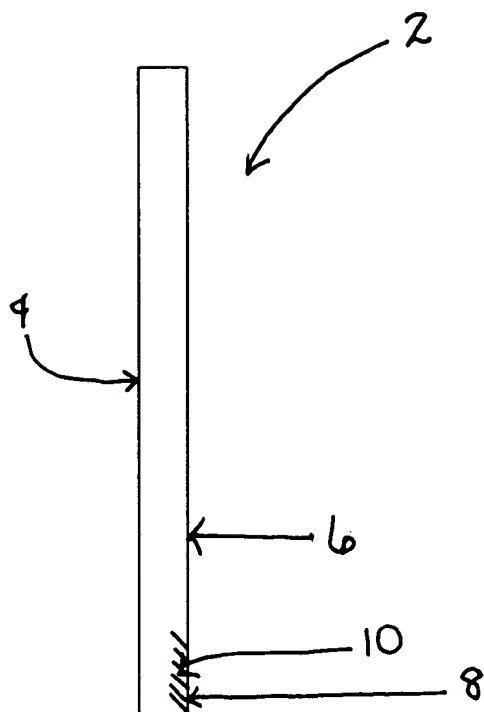


FIG. 1

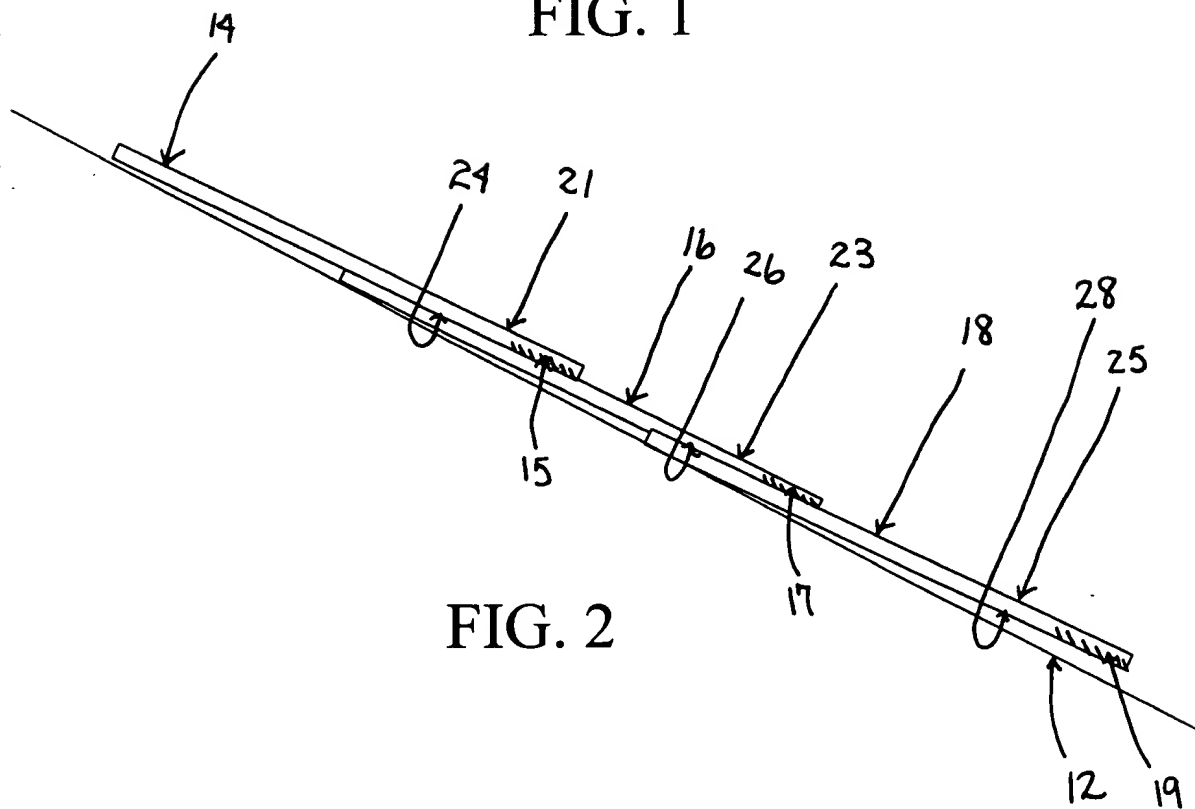


FIG. 2

FIG. 3